

XML DATA ENCODING AND DECODING

ABSTRACT

The present invention provides methods, systems and apparatus to improve XML data encoding (compression) decoding (decompression) efficiency. In an example embodiment, a syntax type generator 2-1 converts a DTD into an ASN.1 abstract syntax type, and a separation unit 2-2 separates text from XML data that conforms to the DTD. Then, a syntax value generator 2-3 converts the XML data (the syntax of an element) from which the text has been separated into an ASN.1 abstract syntax value that conforms to the ASN.1 abstract syntax type. Thereafter, following the conversion by a transfer syntax generator 2-4 of the ASN.1 abstract syntax value into an ASN.1 transfer syntax, the separated text is compressed by a compression unit 2-5 and encoded XML data is generated by a combining unit 2-6 that combines the ASN.1 transfer syntax and the compressed text.

[Selected Drawing] Fig. 1